

AIR-020X

AI Inference System Based on NVIDIA® Jetson™ Xavier NX



Features

- Extreme Compact and performance AI box up to 21 TOPS AI computing
- NVIDIA® Jetson™ Xavier NX built-in
- 12-24V wide power and -10-55 °C wide temp. supported
- Multiple IO ports: Dual LAN, DIO, 2x COM, 2x USB 3.2 and USB type C
- M.2 2280 128GB storage built-in
- Edge AI Suite AI Utility Support for pre-trained models and deep learning
- Linux Ubuntu 18.04 LTS and JetPack 4.5.1 preload
- IP40 Design compliance
- Qualified for Edge AI SRP of WISE-DeviceOn

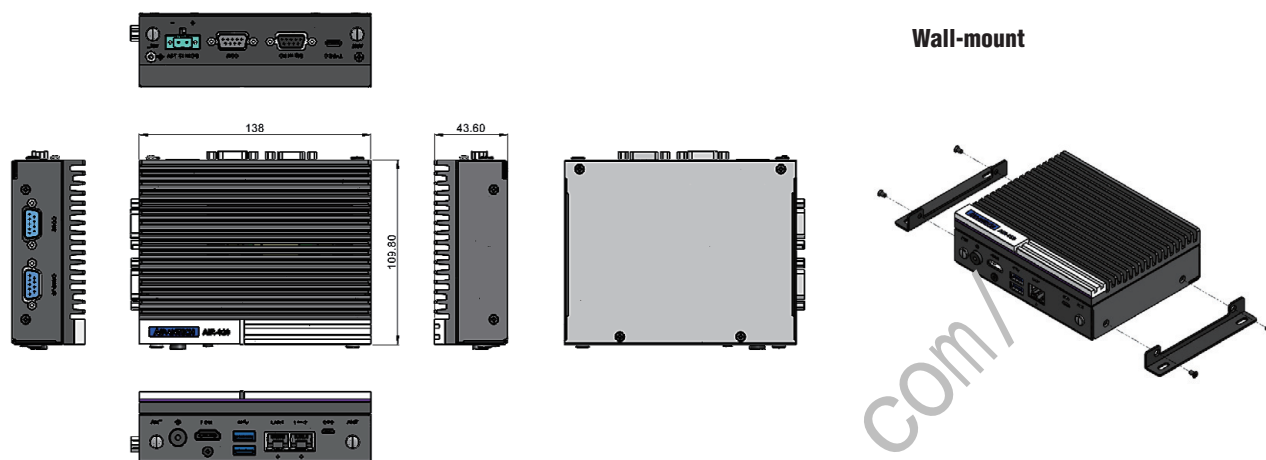


Specifications

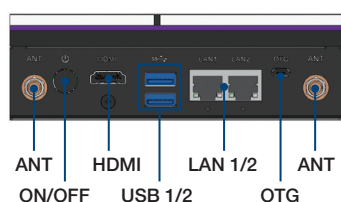
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|------------------|--------------------------|---|
| Processor System | CPU | ARM v8.2 Six core Carmel processors, Max. 1.9 GHz |
| | GPU | Volta 384 CUDA core and 48 Tensor cores |
| | AI Performance Reference | 21 TOPS (INT8) |
| | Memory | 8 GB LPDDR4 |
| | Flash | 16G eMMC |
| Ethernet | Interface | RJ-45 |
| | Controller | Intel® i210AT, NVIDIA SoM |
| | Speed | 2 x Gigabit Ethernet (10/100/1000 Mbps) |
| Display | HDMI | 1 x HDMI (Max. resolution 3840 x 2160 @ 60Hz) |
| IO Ports | USB | 2 x USB 3.2 Type A 1 x USB 3.2 Type C |
| | OTG USB | 1 x Micro USB (for system recovery only) |
| | CANBus | 1 x DB9 |
| | DI/DO | 8 bit |
| | COM | 2 x RS-232/RS-422/RS-485 |
| Expansion | MiniPCle | 1 x Full-size mPCIE with Nano SIM slot (USB/PCle signal) |
| Storage | M.2 2280 | 1 x M.2 2280 (M Key), 128GB storage built-in |
| Power | Power Supply | Power adaptor 65W, optional |
| | Power Type | ATX/AT mode, ATX default |
| Environment | Operational Temperature | -10 ~ 55 °C with 0.7 m/s air flow (non-throttling) |
| | Operating Humidity | 95% @ 40 °C (non-condensing) |
| | Vibration | 3 Grms @ 5 ~ 500 Hz, random, 1 hr/axis |
| Mechanical | Dimensions (W x D x H) | 138 x 110 x 43.6 mm |
| | Weight | 0.85 kg |
| | Mounting Support | Wall mounting |
| Operating System | Linux | Ubuntu 18.04 LTS with JetPack 4.5.1 |
| Software Support | Software API | Edge AI Suite/FaceView compatible |
| Certifications | EMC/Safety | CE/FCC Class B, CB, UL, CCC and BSMI (No RED Certificate) |

Dimensions

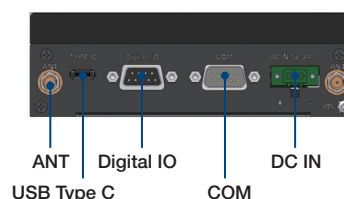
Unit: mm



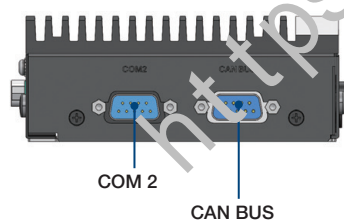
Front Panel I/O Mechanical Layout



Rear Panel I/O Mechanical Layout



Side Panel I/O Mechanical Layout



Ordering Information

| Part No. | CPU | VPU | Memory | Storage | HDMI | GbE | USB | CANBus | RS-232/422/485 | DIO | Power input | Operating Temperature |
|---------------|---------------------|---|---------------------|---------------------------------------|------|-----|-----|--------|----------------|-----|----------------------|-----------------------|
| AIR-020X-S9A1 | ARM v8.2, six cores | Volta 384 CUDA core and 48 Tensor cores | 8GB LPDDR4 built-in | 16GB eMMC onboard, 128GB M.2 built-in | 1 | 2 | 3 | 1 | 2 | 1 | 12-24V _{DC} | -10-55 °C |

Packing List

| Part Number | Description | Quantity |
|---------------|--|----------|
| AIR-020X-S9A1 | NVIDIA AI Inference System | 1 |
| 1700028866-01 | Micro USB cable 40cm for system recovery | 1 |
| - | Simplified Chinese User Manual | 1 |

Optional

| Part Number | Description |
|------------------|---|
| 96PSA-A65W19P2-1 | Power adapter 19V 65W |
| 1700001524 | Power Cord UL 3P 10A 125V 183cm (US) |
| 170203183C | Power Cord EU 3P 2.5A 250V 183cm (EU) |
| 170203180A | Power Cord BSI 3P 2.5A 250V 183cm (UK) |
| 1702031836 | Power Cord SAA 3P 10A 250V 183cm (AU) |
| 1700008921 | Power Cord PSE 3P 7A 125V 183cm (Japan) |
| 1700019146 | Power Cord CCC 3P 2.5A 250V 183cm (China) |
| AMK-W005 | Wall mount kit |

WISE-DeviceOn

Edge AI OTA and Container Management

WISE-DeviceOn End-to-End Solution for Edge AI

Even if all datasets, algorithms, trainings, UI/UX, and more are functioning, how can you easily deploy an AI application to hundreds, or thousands, of inference devices in production? How can you efficiently manage AI models (software updates, CI/CD), in addition to all remote, hardware devices, such as sensors?



Solution Advantages



Performance Booster

- Inference optimization
- Open Neural Network Compiler (ONNC)
- Save over 45% DRAM consumption



Fleet Management

- Remote batch control for power management, reboot, terminal and screenshot
- Real-time monitoring, diagnostics and notification
- Over 10,000 devices around the globe



Container and OTA

- Streamlined deployment process
- Docker container management
- Software OTA (over-the-air) updates



AI Security

- AI containers deployed via Azure Container Registry and Harbor
- Secured data connection (TLS/SSL)
- Integrity protection based on digital signature

👉 Find More Information about [WISE-DeviceOn End-to-End Solution for Edge AI](#)